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UNITED STATES DEPARTMENT OF AGRICULTURE

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STORED PRODUCT INSECT INVESTIGATIONS

E. A. Back, Entomologist, in Charge

In April, while in pursuit of other duties in connection with the bean-weevil investigations at Alhambra, Calif., C. K. Fisher examined at Chino, Calif., a stock of bean straw which had stood out in the open two winters and one summer. Many black-eyed cowpeas were found infested with *Bruchus quarimaculatus Fab.* Enough weevils were found breeding in the seeds which had escaped the threshing operation to furnish a source of infestation for the coming growing season. Last fall an investigation of infestations in the Chino region showed that this same stock of bean straw was responsible for infestation in 1924 of beans growing as far as one and a quarter miles away. Mr. Fisher also found *Bruchus obtectus Say* breeding in another stock of red kidney bean straw two years old.

Dr. R. T. Cotton spent the first week of April in St. Louis, continuing tests of a vacuum chamber. A prominent warehouseman of St. Louis has devised a room for the treatment of various commodities by vacuum for the purpose of killing insects infesting them. The April test was the outgrowth of previous tests conducted by Doctors Back and Cotton. Data secured indicate that all stages of common household pests, as well as many other storage pests, can be killed by a 28- to 29-inch vacuum. This vacuum chamber has been exploited for several months, especially among the membership of various warehousing associations, and the trade has exhibited great interest.

In April various manufacturers of curled hair submitted samples of their products. The American Association of Upholstered Furniture Manufacturers have indicated interest in having tests made to determine how susceptible to the attack of clothes moths these upholstering products may be. It is hoped that the tests will be sufficiently conclusive to settle certain trade contentions.

Dr. E. A. Back was present by invitation at the monthly supper and meeting of the New York Textile Colorists and Chemists, held April 24 at the Stewart Restaurant, New York City. Special interest centered in a motion picture on clothes moths which was made in Germany at the expense of a commercial Company, interested in one of the so-called mothproofing solutions known as "Eulan." The presentation of the film was accompanied by a talk by Dr. Mullin, a chemist of Camden, N. J.

A concern prominently engaged in the transportation of almonds from Spain called on April 14 to discuss the subject of insects attacking nut meats. Considerable difficulty has been experienced in shipping shelled almonds to different parts of the world. By issuing a circular of information, approved by this Bureau, and by following directions for fumigating their products, members of the company report that their insect problem has been greatly simplified.

During the last half of April A. C. Larson, of the bean-weevil investigations, Alhambra, Calif., conducted an intense campaign in Butte and Stanislaus Counties, preparing the way for some field experiments planned by the Bureau. These experiments look toward a lessening of bean-weevil infestation in the field through the destruction of breeding places in storage. The bean-growing section of Butte County near Gridley, Biggs, and Manzanita was inspected on April 16 and 17, and a talk on bean-weevil control was given on the evening of the 17th at the Manzanita Farm Bureau Center. On the 18th, accompanied by O. W. Jarvis, agricultural appraiser of the United Bank and Trust Company, Mr. Larson inspected conditions in parts of Butte, Glenn, and Sutter Counties. On April 20 bean warehouses at Modesto, Ceres, and Turlock were inspected during the day and a talk was given at night before representatives of the Farm Advisor's Office and of the Farm centers of Stanislaus County. At this meeting a County Farm Bureau Bean Weevil Committee was appointed to assist Mr. Larson in conducting his field investigations. Money was voted for printing posters. On April 22 Mr. Larson was the speaker at the luncheon of the Lions' Club of Modesto and in the evening gave a talk at the Empire Farm Center. These are a few of Mr. Larson's activities during the past month in an effort to get the seasons investigation started on a large and convincing scale.

While in New York on April 24 and 25 Dr. Back visited the furniture departments of certain of the best known department stores. It is pleasing to record the eagerness with which the department managers dropped their work to discuss their insect problems. The losses sustained by furniture departments as the result of insect attack are very great and are on the increase. Certain firms treat returned infested furniture, charging from $10 to $30 per chair or divan, and in addition the store pays to these fumigators transportation charges both ways, and necessarily assumes the added cost of replacing damaged covers.

The American Warehousemen's Association, Household Division, recently addressed a letter to the Secretary of Agriculture, calling attention to the need for a thoroughgoing investigation of the insect problems associated with the storage of household goods.

At the request of D. K. Grady, Secretary of the Dried Fruit Association of California, J. C. Hamlin of Fresno, Calif., forwarded on April 24 a statement relating to the raisin-trash fumigator which Mr. Hamlin has devised and which has already been installed at several raisin packing plants. This statement has been mimeographed at the expense of the Association for the benefit of its membership.

CEREAL AND FORAGE INSECT INVESTIGATIONS

C. A. Dean, Senior Entomologist, in Charge

W. D. Whitcomb, formerly employed under Dr. A. L. Quaintance in Fruit Insect Investigations, has accepted a transfer to this section, effective April 16, to investigate insecticides for the control of the European corn borer.

L. H. Worthley, in charge of the corn-borer control operations, visited Cleveland and the western area during the week of April 6 to consult State officials and arrange plans for the control work during the approaching season.

W. R. Walton, Acting in Charge, visited Staten Island, N. Y., April 6 and 7, in company with L. H. Worthley, to inspect the clean-up work being conducted on the northeastern side of Staten Island, where an incipient infestation of the corn borer was discovered last fall. As a result of continuously favorable weather, the work was finished expeditiously, and excellent results were expected. A similar operation in Brooklyn was finished about June 1.

W. J. Phillips, in charge of the Charlottesville, Va., laboratory, visited Washington April 21 for the purpose of consulting specialists and arranging plans for the season's work. Mr. Phillips reports that the extraordinarily dry conditions in the vicinity of Charlottesville have interfered seriously with agricultural operations, especially plowing.

F. W. Poos, in charge of the Sandusky substation, attended the meeting of the Ohio Academy of Science at Wooster on April 3 and 4.

D. J. Caffrey, in charge of the corn-borer research work, has been located at Oak Harbor, Ohio, for several weeks, where he is cooperating with the Ohio State Experiment Station in extensive plowing experiments to determine the effect of plowing down cornstalks and stubble during the spring. Mr. Caffrey expects to remain at Oak Harbor until about June 1.

J. R. Horton and J. S. Pinckney were recently in consultation with the extension authorities of Oklahoma regarding the serious grasshopper outbreak near Lawton. Mr. Horton has planned to conduct control experiments in connection with the control work undertaken by the State extension authorities.

Prof. George A. Dean visited Washington April 25 to 29, to attend the meetings of the National Research Council and the National Academy of Sciences, and to consult regarding the conduct of the work of this Division.

SOUTHERN FIELD-CROP INSECT INVESTIGATIONS

J. L. Webb, Associate Entomologist, in Charge

Perry A. Glick, Junior Plant Quarantine Inspector, has been transferred from the Federal Horticultural Board to this Bureau, and has been assigned to work on the cotton aphis. He will give special attention to increase in infestations following applications of calcium arsenate to cotton for control of the boll weevil. Mr. Glick will be stationed at Tallulah, La., and will work under the direction of B. R. Coad.

The first definite record of the sugarcane moth borer in the region of Cairo, Ga., has been furnished by Dr. P. A. Yoder, of the Bureau of Plant Industry, who brought a living specimen to this Bureau for identification.

T. P. Cassidy is now stationed at Tucson, Ariz., where he is investigating the Arizona weevil, Anthonomus grandis Boh., var. thurberiae Pierce.

G. L. Garrison, of the Washington office, is now at Quincy, Fla., where he will remain for the next few months, assisting Mr. Chamberlin in tobacco-insect investigations.

FRUIT-INSECT INVESTIGATIONS

A. L. Quaintance, Senior Entomologist, in Charge

On three occasions in the month of April E. A. McGregor and A. C. Mason, of the citrus thrips investigations, appeared before Farm Bureau members and directors of citrus exchanges for the purpose of explaining the work that has been done on the project in the past, and of outlining plans for future endeavors. One of these meetings was attended by about 100 interested persons, and the others by about 150.

Mr. McGregor reports that A. F. Kirkpatrick was appointed Collaborator in the Bureau of Entomology, effective April 10. For some time Mr. Kirkpatrick has been conducting inspection studies for the Tulare County Horticultural Commission on citrus-pest control. His voluntary cooperation has been of great assistance to the staff of the citrus-thrips project.

On account of the increase in the curculio population in Georgia peach orchards last summer, when thousands of cars of peaches were left in the orchards, and as a result of the low mortality during the very mild winter, the curculio infestation, as reported by O. I. Snapp, in charge of the Bureau's laboratory at Fort Valley, Ga., is now heavier than it has been for three years. The program of curculio suppression is being vigorously enforced, but some trouble from the insects is anticipated this year, unless weather conditions during the pupation season in May are especially unfavorable for their development.

Visitors at the camphor-scale laboratory at New Orleans, La., in March and April, according to H. K. Plank, in charge of the laboratory, included Franklin M. Jones, specialist in Psychidae, 2000 Riverview Avenue, Wilmington, Del., who called on March 23 in reference to Psyche gloverii Pack., a predator of the camphor and other scale insects; Dr. H. L. Dozier, Entomologist of the Insular Experiment Station, Rio Piedras, P. R., who called on April 4; and Dr. A. D. Imms, Entomoligist of the Rothamsted Experiment Station, Harpenden, England, who called on April 18.

W. D. Whitcomb, for a number of years engaged in deciduous-fruit insect investigations, and more recently in camphor-scale investigations in New Orleans, has been transferred to corn-borer work at Arlington, Mass.

E. J. Newcomer, of the Yakima, Wash., station, spent the week of April 20 in the Wenatchee District assisting the State Extension Service in a series of meetings to inform the fruit growers as to the best methods of controlling the codling moth.

G. F. Moznette has recently returned from an extended trip for the Federal Horticultural Board to Argentina, and has resumed his work at his permanent headquarters at Miami, Fla.

During April Dr. A. L. Quaintance visited the peach-insect laboratory at Fort Valley, Ga., and the citrus-fruit-insect laboratory at Orlando, Fla., for consultation with the men in charge of the various phases of the work.

Dr. Alvah Peterson, formerly Assistant Entomologist of the New Jersey Agricultural Experiment Station at New Brunswick, has been appointed Entomologist, and will be charged with the investigational work of the Bureau on the oriental fruit moth. He will establish headquarters at the Japanese beetle laboratory at Riverton, N. J. In addition, it is planned to carry out investigations of this insect in Pennsylvania, in cooperation with the Pennsylvania State Department of Agriculture.

FOREST-INSECT INVESTIGATIONS

F. C. Craighead, Entomologist, in Charge

Dr. Craighead spent several days early in April at the Northeastern Forest Experiment Station, Amherst, Mass. Dr. Haven Metcalf, of the Bureau of Plant Industry, was also present, as well as several other specialists interested in northeastern forestry problems. A tentative plan was drawn up for entomological and pathological cooperation with this experiment station. The white-pine weevil will be the chief entomological problem undertaken by the Bureau. Through the efforts of Dr. R. T. Fisher, of Harvard University, $2,500 has been donated by Massachusetts timberland owners to assist in conducting these studies.

Toward the end of the month Dr. Craighead spent two days at Madison, Wis., discussing with Dr. E. J. Kraus plans for certain investigations which the latter will undertake for the Bureau this summer. Dr. Kraus has been appointed to make a preliminary study of the condition within the tree which affects its susceptibility to bark-beetle attack and influences brood development. It is becoming more and more evident from our studies that many species of bark-beetles do not attack indiscriminately any trees in the forest, but that in many cases predisposing conditions within the tree are necessary.

R. A. St. George spent a few days in the early part of the month following up the condition of the drought-stricken timberland areas in Mississippi and Louisiana. It was found that the unusual losses of last fall have abated, and practically no trees are now dying.

Mr. St. George left Washington on April 2 for the Appalachian Forest Experiment Station, Asheville, N. C., where cooperative studies relating to important insect problems in that vicinity have been started.

While on a recent trip to Bogalusa, La., Mr. St. George collected a large quantity of longleaf pine shoots (Pinus palustris) which were heavily attacked by the Nantucket tip moth (Rhyacionia frustrana Comstock). This collection was made for R. A. Cushman, who is devoting considerable time at the Falls Church laboratory to studying the parasites of this moth. This year's growth was heavily infested with young larvae.

Defoliation experiments on jack and Scotch pines and larch are being continued this year at the Eastern Field Station, East Falls Church, Va. Already some very interesting results have been obtained.

L. G. Baumhofer has been appointed Field Assistant to study the tip-moth infestation on the Halsey plantations, Nebraska National Forest. The work is being carried on under the direction of Dr. S. A. Graham. The Forest Service is cooperating and assisting financially. Mr. Cushman is collecting parasites which will be introduced in an effort to control this unusually heavy infestation.

A campaign is being conducted through correspondence and special articles in magazines, for the purpose of slightly modifying city building regulations so as to protect new structures from damage by termites. Faulty construction is the cause of practically all cases of infestation of buildings by termites. If Householders realized this fact they would insist on proper construction as a means of insurance against such damage. Under present conditions the householder pays! With proper regulation, the architect or contractor should pay!

TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, Entomologist, in Charge

J. E. Dudley, Jr., Associate Entomologist, has returned to his official station at Madison, Wis., from California, where he spent about two months making tests under California conditions with the aphidozer on peas grown for cannery purposes.

B. L. Boyden, Associate Entomologist, Tampa, Fla., reported that the sweet-potato weevil eradication laboratory at Macclenny, Fla. burned on the night of April 16. Fortunately, the majority of the notes on the project were moved to Tampa some time prior to the fire, and only a few notes and a small amount of laboratory equipment were destroyed.

Mr. Boyden, accompanied by W. E. Stone, Junior Entomologist, Tampa, Fla., visited Sanford, Fla., during the latter part of April to make observations on the wild host plants of the celery leaf-tyer (Phlyctaenia rubigalis Guen.), and also to determine other factors which relate to the outbreaks of this insect in the celery fields of Florida.

E. W. Davis, formerly of the Kansas Agricultural College, has received a temporary appointment and is stationed at Madison, Wis. He will assist Mr. Dudley in investigations on the control of the onion maggot (Hylemyia antiqua Meig.).

N. F. Howard, Associate Entomologist, Birmingham, Ala., stopped off at Washington en route to Geneva, N. Y., to formulate plans with Professor P. J. Parrott, of the New York Agricultural Experiment Station, regarding a cooperative project on the Mexican bean beetle in that State.

Rodney Cecil, Junior Entomologist, formerly located at Birmingham, Ala., working under the direction of N. F. Howard, has been assigned to the project just mentioned and will be located at Geneva, N. Y., on and after May 1, 1925.

BEE-CULTURE INVESTIGATIONS

James I. Hambleton, Apiculturist, in Charge

Virgil Argo, who, in connection with his graduate work at Cornell University, is making an investigation of Braula coeca Nitzsch in Carroll County, Md., visited the Bee-Culture Laboratory several times in April.

Other recent visitors were Dr. A. D. Imms, of the Rothamsted Esperimental Station, England; and Dr. E. F. Phillips, of Cornell University.

Jas. I. Hambleton attended a meeting of beekeepers and horticulturists in Providence, R. I., on April 29.

GIPSY MOTH AND BROWN-TAIL MOTH INVESTIGATIONS

A. F. Burgess, Senior Entomologist, in Charge

Franklin H. Mosher, who had for many years been connected with the gipsy moth laboratory, died April 18, 1925, at Melrose Highlands, Mass. He had been ill but a few days, and his sudden death was a great shock to his associates, by whom he was held in high esteem.

TAXONOMIC INVESTIGATIONS

S. A. Rohwer, Entomologist, in Charge

Dr. H. L. Dozier, Entomologist of the Porto Rican Experiment Station, spent about two weeks at the Division of Insects, conferring with specialists and examining types of Hemiptera.

Dr. J. Hatori, Biologist of Formosa, stopped at the Division of Insects to study the mite collection and confer with Dr. Ewing.

F. H. Wilson, graduate student of Cornell University, spent about ten days in the section working on Mallophaga in connection with the preparation of a thesis.

Dr. A. D. Imms, of Rothamsted, England, recently visited the Section of Insects, consulting with various specialists. During his stay in Washington he was the guest of Dr. Böving.

George F. Moznette, of the Bureau of Entomology, recently returned from a trip to Argentina and Chile for investigating the distribution of fruit-flies affecting oranges and other fruits. While in Washington, in preparing his report on his trip, Mr. Moznette made use of the National Collection of fruit-flies to obtain data on the distribution of various forms. While here he consulted with dipterists to obtain identification of material he had collected. The small collection of miscellaneous insects he obtained while on this trip has been deposited in the National Collection.

Don Fernando Silvela, Agricultural Attache of the Spanish Embassy, visited the Division of Insects, especially to renew his acquaintance with Dr. Mann, with whom he became acquainted when Dr. Mann was in Spain last year.

Miss Grace Sandhouse, graduate student of Cornell University, spent a week in the Section of Insects studying bees. Most of this time was devoted to a study of the types of the bees belonging to the genus Cosmia. Miss Sandhouse is preparing a revision of the North American species of this genus, to be submitted to Cornell University as partial requirements for a degree of Doctor of Philosophy.

Dr. H. G. Dyar, assisted by Mr. Shannon, has been studying various forms of Diptera related to mosquitoes, and recently completed an interesting paper dealing with the Simuliidae. In making the studies of this group they are using a number of new characters, and it is hoped that they will be able to do some work on the immature specimens.

W. J. Phillips recently spent about two days consulting with Dr. Böving in preparing descriptions of hymenopterous larvae.

Mrs. Thomas L. Casey has personally given to the Museum a generous sum of money for the purchase of a binocular microscope to be associated with the Casey Collection of Coleoptera, for the use of students who consult this collection. A more than usually complete outfit has been ordered, with several new features. An important part of it is a complete series of objectives, including several of higher power than are at present in the Museum equipment. The money donated for this purpose had been received by Mrs. Casey in the form of Christmas presents from her husband, and it was her wish to use it to provide a special microscope which would be always available for those studying there.

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Mabel Colcord, Librarian

NEW BOOKS

Berlese, Antonio,
Gli insetti. v. 2, fasc. 42-61, pp. i-x and 849-992 (end of v. 2, Vita e costumi con particulare riguardi agl insetti interessanti). Milano, Editrice libraria, 1925.

Catalogue of Indian insects. Calcutta, Gov't. of India Central Publications Branch, 1924. Pt. 4. Trypetidae (Trypanidae), by R. Senior White. 33 pp. Part 5. Nitudulidae, by S. N. Chatterjee. 40 pp.

Ceballos, Gonzalo.
Estudios sobre Ichneumonidos de Espana I. Subfamilia Joppinae (Tribus Joppini, Amblytelini, Listrodromini)... Madrid, 1924. 335 pp. illus. (Junta para ampliacion de estudios e investigaciones cientificas. Trabajos del Museo nacional de ciencias naturales. Serie zoologica 50.)

Chemical reference and industrial directory of sources of production, distribution and supply of the most-used chemicals and industrial raw products. New York, N. Y., Commercial, 1925. 314 pp.

Chupp, Charles.
Manual of vegetable garden diseases. New York, The Macmillan Company, 1925. 647 pp. illus. (Rural manuals, ed. by L. H. Bailey.) References interspersed.

Czerny, Leander.
Monographie der Helomyziden (Dipteren)... Wien, Verlag der Zoologisch-botanischen Gesellschaft, 1924. 166 pp., plate. (Abhandlungen der Zoologisch-botanischen Gesellschaft in Wien Bd. XV, Hft. 1.)

Douglas, C. E.
Rice - its cultivation and preparation. London, Sir Isaac Putnam & sons, ltd., 1924? 143 pp., illus. The enemies of rice and methods of combating them. pp. 113-123.

Imms, A.D.
A general textbook of entomology. London, Methuen & Co., ltd., 1925. 698 pp., illus. "Literature" at ends of chapters.

Johnson, O. W.
List of the Diptera or two-winged flies. Boston, Printed for the Society from the Gurdon Saltonstall fund, Feb. 1925. 326 pp. (Boston Soc. Nat. Hist. Occasional Papers 7 - Fauna of New England 7.)

Kleine, R.
Brenthiden von Sandakan (Borneo). Beitrag zur Kenntnis der Brenthidenfauna der Philippinen. Die geographische Verbreitung der Brenthidae. (Archiv fur Naturgeschichte, 87 Jahrg., 1921, Abt. A., 10 Heft. p. 21-132, illus.)

Maskew, F. M.
A sketch of the origin and evolution of quarantine regulations. Published by the California State Association of County Horticultural Commissioners, 1925. 65 pp.

Neuhaus, G. H.
Diptera Marchica...systematische Verzeichniss der Zweifluegler (Mücken und Fliegen) der Mark Brandenburg. Berlin, Nicolaische Verlags-Buchandlung, 1886. 371 pp. illus.

Schroder, Christoph.
Handbuch der Entomologie, lfg. 17-18. Jena, 1925. 1041-1201 pp., and titlepage and index to vol. 3.

Schulze, Paul.
Biologie der Tiere Deutschlands. Berlin, Verlag von Gebruder Borntraege, 1923-24. Lfg. 8, teil 42, Hymenoptera, von H. Bischoff. 65-156 pp. illus. Literatur, pp. 154-156. Lfg. 10, teil 32, Plecoptera, von Ed. Schoenemund. 34 pp.; teil 40, Coleoptera-Kafer, von H. von Lengerken. 36 pp. illus.